

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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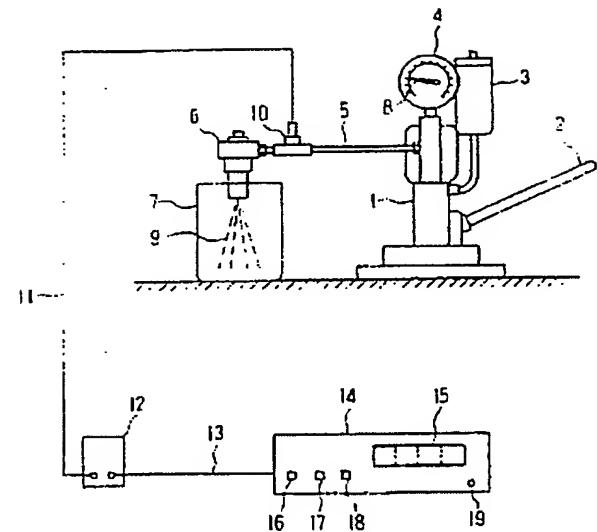
APPLICATION DATE : 07-03-84  
APPLICATION NUMBER : 59043104

APPLICANT : NISSAN MOTOR CO LTD;

INVENTOR : NAKA TAKASHI;

INT.CL. : F02M 65/00

TITLE : APPARATUS FOR MEASURING  
INJECTION NOZZLE OPENING  
PRESSURE



ABSTRACT : PURPOSE: To enable to measure the nozzle opening pressure with high accuracy and ease with no need of the operator, by converting pressure in an injection pipe into voltage, furnishing the peak-held signal to an indicator for digitally displaying the peak value of pressure in the injection pipe, and taking the peak value as the nozzle opening pressure.

CONSTITUTION: Fuel pressure is converted into a voltage signal by means of a pressure transducer 10 utilizing a semi-conductor type pressure sensor, which is attached to an intermediate portion of an injection pipe 5, and the analogue voltage signal is furnished to a circuit 14 for measuring the nozzle opening pressure via an amplifier 12 and a signal wire 13. The input signal to the circuit 14 is furnished to a peak-hold circuit via a buffer amplifier. The peak-hold circuit incorporates therein a voltage holding capacitor and compares the value of voltage of the input signal with the voltage across the voltage holding capacitor. The voltage across said capacitor is afforded as the peak value of the input signal and displayed digitally at a digital display 15 as the nozzle opening pressure. Therefore, reading errors by operator eliminated completely.

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